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ABSTRACT

Four papers explore issues related to the role of parent involvement in providing employment services to young adults with mental retardation and developmental disabilities. In the first paper, results of a survey of parents and guardians revealed a generally negative attitude about changes in working conditions recommended in recent federal policy. Parents' aspirations for their retarded children are reviewed in the second paper. In the third paper, guidelines are given for parents to help their children with severe developmental disabilities to receive appropriate vocational training and employment beginning in the elementary school and continuing through high school. The final paper presents findings from a parent survey to identify work-related skill deficits of their children. Among most frequently named problems were money-related skills and community functioning skills. (CL)

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Parent Involvement

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PARENT/GUARDIAN ATTITUDES TOWARD THE WORKING CONDITIONS OF THEIR MENTALLY RETARDED CHILDREN

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Abstract

As major changes in vocational habilitation strategies are being articulated at the federal level, the attitudes of parents toward the working conditions of their mentally retarded children warrant careful attention. A mail survey was conducted from a representative sample in the State of Virginia of 660 parents/guardians yielding a 47.5% return rate. From demographic and attitudinal information surveyed, a series of one-way ANOVAS showed that parent attitudes toward vocational services for their child was strongly influenced by the developmental level of the child. It was not significantly influenced by age or sex of the child, or the educational level of the parents. Parents and guardians in this sample were generally negative about the changes in working conditions recommended in recent federal policy especially about increased wages. They indicated satisfaction with the current program placements for their children. Most persons indicated a positive attitude toward work for their children but ostensibly not toward competitive employment.

Parent/Guardian Attitudes Toward the Working Conditions of Their Mentally Retarded Children

Evidence exists in the literature that parental attitudes may strongly influence the outcomes of intervention with individuals who are mentally retarded (Edge, Streneckly, & McLaughlin, 1979; Ferrara, 1979; Goldstein, 1979; Walthat & Love, 1974; Whitter, 1972). This relationship has been shown under a variety of circumstances ranging from work-oriented settings (Nitzberg, 1974) to recreational programs (Katz & Yekateil, 1974). Parental attitudes may affect the type of program placement selected for the mentally retarded son or daughter (Meyer, 1980) as well as expectations for program placements in the future (Venn, Dubose, & Merbler, 1977). Indeed, Eyman, Dingman, and Sabagh (1966) found a direct relationship between speed and ease of institutionalization and parental attitudes. That is, parents with more negative attitudes tended to have shorter waiting periods between referral and actual institutionalization.

Changes in social/rehabilitative policy are now being articulated by leaders in the field regarding the nature of comprehensive services for persons who are mentally retarded (Bellamy, Rhodes, Wilcox, Albin, Mank, Boles, Horner, Collins, & Turner, 1984; Wehman & Kregel, 1984; Will, 1984). These changes reflect a far greater emphasis on meaningful work for decent pay in integrated work settings for many retarded persons who have never worked before. Unfortunately, changes are being proposed without sufficient information on parental attitudes and parental input. Although some service providers may find the attitudes of parents not relevant to vocational program development, parental attitudes must be understood if successful changes are to occur. Without parental support, employment programs will not work (Kochany & Keller, 1981).

Establishing a baseline of parental attitudes toward vocational program needs is imperative since the type of employment, if any, experienced by a retarded person may drastically influence nearly every aspect of his or her

life as well as alter parental responsibilities. At present, a description of the attitudes of parents regarding the vocational alternatives available for their children who are mentally retarded is absent from the literature other than very limited findings with small special interests groups (Venn et al., 1977). Although much research has involved the impact of the attitudes of teachers, other professional service providers, and even, age-peers (e.g., Gottlieb & Corman, 1975; Phelps, 1965; Rosenthal & Jacobson, 1968; Voeltz, 1980), there has been very little published literature relevant to the opinions of parents. Parents' attitudes must be known and be part of the decision-making process toward planning for the potential employment of their son or daughter. This is especially true in light of the deplorably high 50-75% national unemployment rates of disabled people (U. S. Commission on Civil Rights, 1983) as well as the notable discrepency in pay levels of $2.55/hour for disabled individuals versus $4.50/hour for nondisabled persons (Wolfe, 1980).

The purpose of the present investigation was to assess parental attitudes toward employment opportunities and adult services for their own mentally retarded, adult sons or daughters. Parents in the state of Virginia were surveyed regarding (a) the degree to which certain normalized working conditions should exist for their children; (b) the optimal vocational placement for the children; and (c) the degree to which parents believe work should be an integral part of life for their children. This investigation also attempted to identify the variables influencing the attitudes of parents. It is anticipated that the results of this report will help improve future programs aimed at realigning parental attitudes to reflect more accurate views of the vocational potentials of persons with mental retardation if appropriate supportive services are provided. Finally, since most of the literature on parental attitude shows very limited generality, a major emphasis of this investigation was to

develop sampling procedures that would accurately represent the attitudes of parents and guardians with adult children from all mental retardation disability groups on a state-wide basis.

Method

Sample and Sampling Procedures

Reaching parents or guardians of persons who are mentally retarded on a state-wide basis has become increasingly and necessarily difficult in recent years due to the legal constraints of client confidentiality. In our efforts to draw a sample which would, in fact, be representative of parents' views in the state of Virginia, it was not possible simply to acquire a list of mentally retarded persons from state agencies. An alternative approach of obtaining a list of parents through the State Association of Retarded Citizens (ARC) or other parent organizations was also unacceptable due to concerns that members of such groups may not necessarily be "typical" parents of mentally retarded persons. Instead, a more arduous and time consuming approach was adopted, which involved the cooperation, time, and energies of a random selection of local mental retardation services systems throughout the State. The Deputy Commissioner and the mental retardation staff of the State Department of Mental Health and Mental Retardation (MH/MR) were instrumental in enlisting the cooperation and interest of the local service systems.

A stratified two-stage cluster sampling procedure was used to draw the sample for the attitude survey. The 37 community services systems in Virginia were stratified by geographic region using the State Department of MH/MR's five defined service areas (a geographic strata). The first step in the sampling procedure involved selecting 15 community services systems, three from each of the five geographic services areas. A sampling ratio of approximately .40 was used, resulting in the selection of one large, one medium, and one small community system at random within each geographic region. The second step

involved using a .20 sampling ratio to select parents who would receive a survey by a systematic random procedure from each of the 15 community services boards. Of the 15 selected systems, only one declined to participate due to its recent reorganization of client files.

With the help of an investigator on-site, the sample was drawn and surveys were addressed and mailed from the office of each locality by the case manager. One week later, a follow-up letter was addressed and mailed by the locality office. In some cases, due to concerns for client confidentiality, service systems did not permit our assistance in drawing the sample or addressing surveys. This occurred in six out of 14 systems. With these six localities, written guidelines for drawing the sample were provided when the investigator delivered the survey materials. Procedures were thoroughly described and practiced with the case manager of the locality. In such cases, the service system later informed the first author of total number of surveys mailed. A total of 660 surveys were mailed throughout 14 localities.

Instrument

A team of five investigators with backgrounds in vocational training for individuals with severe handicaps and in survey research developed the attitudinal survey questionnaire. Item selection was based upon informational needs necessary for current planning of social and rehabilitative policy. Specifically, recently prescribed improvements in working conditions recommended by leaders in the field of vocational training for severely disabled persons were placed in a format in which parents could indicate their degree of concordance with each. Investigators were most interested in understanding parental attitudes toward the following qualitative issues currently affecting federal policy:

1. The need for improved wages (Bellamy et. al., 1984; Wehman, 1980).
2. The benefits of integration with nonhandicapped coworkers (Brown, Branston, Hamre-Nietupski, Johnson, Wilson & Gruenewald, 1979).

3. The need for greater job advancement opportunities (Rusch & Mithaug, 1980; Wehman, 1980).

4. The benefits of working under less supervised circumstances (Karan, 1978).

5. The need for increased expectations for adult-like behavior (Hill, Wehman, & Kochany, 1979).

6. The right to complete the same work tasks as nonhandicapped persons (Gold, 1972).

In addition to indicating their attitudes toward these state of the art issues, parents were asked to report 1) their actual preference for the optimal vocational setting or program for their child and 2) their agreement with the concept that work should be a normal part of life for their son or daughter (Bellamy, Sheehan, Horner, & Boles, 1980).

Finally, since this investigation sought to examine what variables may influence parental and guardian attitudes, respondents of the survey were also asked demographic information about their children and their families, and to provide information on programs in which their children were enrolled.

The questionnaire consisted of two sections. These were: (1) attitudes toward vocational programs, and (2) demographics on the child and on the parent/guardian and family. Each section is described below.

Attitudes Section

The format of the survey for the attitude section was a Likert-type scale. In this section, parents were asked to indicate the degree to which they perceived their sons/daughters were currently exposed to the six qualitative practices listed above and their opinions regarding the optimal amount of exposure to each practice. Therefore, attitude questions were presented in pairs. The first of the pairs asked for the parents' attitude toward the current situation as they perceived it and the second of the pair asked the parents for the preferred situation on each issue. The first item of the pairs permitted responding on a four-point Likert scale ranging from "never" (1) to "frequently" (4), a don't know response was (5). The responses on the

second of the paired items regarding preferences employed a five-point continuum, which ranged from much less than now (1) to much more than now (5).

In addition to the six pairs of questions regarding attitudes toward the working conditions listed above, the instrument also contained questions on the current and the preferred vocational placements for their children. The program options of both questions were: Institution, Home (no program), Activities Center, Sheltered Workshop, or Competitive Employment. These were considered a continuum from most restrictive/least normalized (Institutional) to least restrictive/most normalized (employment) for purposes of statistical analyses.

Finally, the attitude section of the survey asked parents to indicate their level of agreement with the following statement on a five-point Likert scale ranging from strongly agree to strongly disagree: Work should be a normal part of life for my son or daughter.

Child and Parent Demographic Section

In the section on ch[illegible]emographics, respondents were asked for assessments of their childrens' level of development (IQ), communication skills, independence in self-help skills, and any secondary physical or sensory disabilities. Parents also gave the sex and age of their children. Respondents gave their own educational level, the occupation of the chief wage earner in the family unit, the respondents' sex and relationship to the mentally retarded individual in question.

Validation Process

Before being printed, the survey underwent an extensive, three-phase review process by experts in the field and by parents of persons who are mentally retarded. Extensive revisions of the survey followed these reviews, particularly regarding language refinement and format.

In the first review, all staff of the Virginia Commonwealth University, Rehabilitation Research and Training Center (RRTC) on Competitive Employment of the Mentally Retarded were asked to judge the directions used for each item and the overall format. They were also asked to judge the extent to which the items in the questionnaire met the stated objectives of the investigation and the extent to which the items measured anything other than the intended objectives.

The second step in the validation process was to enlist the help of 10 parents of persons who were mentally retarded to respond to the survey. During a telephone interview conducted by the investigator, the parents were systematically questioned regarding their interpretation of the meaning of each item. Interviews ranged from 20 minutes to 60 minutes. Five of the selected parents had sons or daughters attending a local adult activities center and five were parents of individuals in competitive employment.

The final step in the validation process was to submit the survey to the review of eight nationally recognized experts in vocational training or parent advocacy. These experts were asked to complete the same review process as performed by the RRTC staff, described earlier. The survey was typeset in an attractive, professional quality leaflet format constructed for mailing in a regular business envelope.

Results

A total of 660 questionnaires were mailed out by 14 community service systems. Of this number, 291 were returned after one "reminder" letter was mailed one week following the initial mailing. Postal services returned 48 surveys as undeliverable due to incomplete or incorrect addresses. This reduced the total number of returnable surveys to 612. Thus, the return rate for the survey was 47.5%. Of the 291 returned surveys, 22 surveys were not included in the analyses, because 30% or more of the questions were left unanswered. The final

number for the statistical analyses, therefore, was reduced to 269.

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Table 1 provides detailed data on the characteristics of the sons and daughters and on the respondents themselves and their families. The demographics of the children in question show a representative sample, with fairly equal distribution across sexes, ages, and all disability groups. An examination of Table 1 shows slightly higher representation of males (59%) and a somewhat higher representation of individuals in their 20's (39%). Regarding developmental level (I.Q), the sample parallels the distribution of I.Q. levels in the general population served by adult mental retardation programs with the highest representation of individuals with moderate mental retardation. We find that 64% of the individuals lived at home with their families, only 12% resided in group homes, and approximately 20% in state institutions and other residential facilities.

The mentally retarded individuals in question were reported to be verbal (71%) to some degree, most (62%) were independent or nearly so regarding personal hygiene, and the majority (56%) displayed no secondary impairments.

Table 1 also shows an equal distribution of the respondents (i.e., parents/guardians themselves) across all educational levels and occupations categories, as seen in the right-hand column. Most respondents did not exceed high school (62%). Approximately 29% were in blue-collar type occupations (i.e., farm, service, and manual labor), and 37% were in occupations typically thought of as white collar positions (i.e., clerical, business, managers, and professionals). Interestingly, a large percentage (27%) indicated that they were not working at present. The vast majority (73%) of the respondents were female and most were either the natural mother or father to the individual in question (87%).

Table 2 shows responses to the attitude section of the survey. Parents'

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perceptions of the current situation appear in the left-hand column and their preferences for change in that situation appear in the right-hand column. Regarding current working conditions for their children, parents report very low wages, low job responsibility, high supervision, low requirements for adult-like behavior, and infrequent opportunities to perform the same tasks as nonhandicapped coworkers. The only practice parents/guardians believed was currently occurring on a frequent basis was opportunities for their children to interact with nonhandicapped persons.

Parental preferences for change in their sons'/daughters' working conditions are expressed in relation to the current situation (i.e., Do they prefer more of the improved working condition or less than now?). Examination of the right-hand column of Table 2 shows consistently that most parents prefer that the level of each condition of work remain as it currently stands now (i.e., the majority of parents responded "same as now" to most items). Specifically, 49% were satisfied with current wages, 54% with the current frequency of interaction with nonhandicapped persons, 59% with the reported low responsibility level, 52% with the current level of supervision, 66% with the current expectations for "normal" behavior and 61% were satisfied with the current opportunities to perform the same tasks as nonhandicapped persons.

Table 2 also shows the current program enrollment and the preferred or optimal vocational placement. Satisfaction with the status quo is reflected in the absence of marked preferences for different or more independent vocational placements. The one exception is in parents whose children reside

in an institution or at home with no program. Many of these respondents tend to prefer a different placement.

Finally, Table 2 yields the percentages of responses regarding the parents' attitude toward work as a normal part of life for their children. Three-fourths of the respondents agreed with the concept of work and one-fourth showed disagreement or uncertainty with the importance of work.

Statistical Analyses

Data were subjected to a series of one-way ANOVAS to examine the influence of developmental level of the child and other variables on parental attitudes. The dependent measures utilized in these analyses were: (1) a scale measure of "preferred working conditions" - described below; (2) preferred program placement; and (3) level of agreement with the concept work is a normal part of life, designated "attitude toward work".

The dependent measures of preferred program placement and attitude toward work were analyzed directly from survey responses. The first dependent measure, however, "preferred working conditions", was derived from responses to six pairs of questions regarding the parents' perceptions of current work conditions and their preferences for changes in each condition. Therefore, a preference scale was devised which assigned a single numerical value to each possible combination of responses to each of the six paired questions. This single value shows parental preferences for each of the six recently recommended improvements in the working conditions for the disabled described in current federal policy. Rather than computing a simple difference score for each pair, this preference scale was devised to be sensitive to discrepancies between actual and preferred levels as they related to a recommended working condition. Conceptually, the preference scale continuum ranges from responses indicating "child is currently exposed to this

working condition but parent prefers less exposure" (negative attitude, score of -2) to "child is exposed and parent wants much more exposure" (positive attitude, score of +2). The midpoint of the scale (score of 0) represents responses indicating the "parent perceives frequent exposure and prefers same amount as now." After the six individual scores were computed, a total preference score was calculated by taking the algebraic sum of the six single preference scores. Thus, there were a total of seven values for this dependent measure, representing a single value for each of the six working conditions and a total preference value.

Validation of Preference Scale

The validation of the preference scale was established by analyzing preferred program placement groups (i.e., groups made up of parents who preferred each of the different program options) by preference scale scores. The results of ANOVAS employing the single and total preference scale scores as dependent variables are shown in Table 3. Examination of the group means reveals that

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in every analysis, as preferred program placement moves from the most restrictive, least normalized alternative (institutionalization) to the least restrictive, most normalized alternative (competitive employment), the preference scores move in a positive direction. This movement in a positive direction shows preferences for more exposure to the innovative, more normalized six working conditions. Preferences for the improved working conditions inherently defines interest in more normalized work placements (i.e., competitive wages, contact with nonhandicapped, etc.). Therefore, high correlation of scale scores showing attitudes toward the six recommended working conditions with parents' preferences for work placements with those working

conditions validates the conceptualization of the scale. Post-hoc analyses revealed that the groups differed in the expected pattern in every analysis.

Age of Child and Educational Level of Parent

In primary analyses of this investigation examining the effect of various demographic variables on the three dependent measures, ANOVAS yielded no significant differences in groups using the independent variables of age of the child or educational level of the parent. The results described below were conducted using IQ/developmental level as the independent variable. Student-Newman-Keuls post-hoc analyses employing harmonic means to adjust for unequal cell sizes were used to find group differences for this model which achieved significance.

Developmental Level

Table 4 presents the ANOVA results and group means obtained for the analysis employing Developmental Level as the independent variable with the three dependent measures described above. The results obtained are particularly striking when the group means are examined. A linear trend may be observed across most of the preference scores as well as the total preference score (Items 1 through 7 in Table 4). The same effect is also reflected in group means for preferred program placement (Item 8) and parental attitude toward work (Item 9).

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Although limitations due to sample size and cell ns do not permit identifying each I.Q. level as a statistically different group on each dependent variable, the groups found in post-hoc analyses are in virtually every case indicative of the same general finding - preference for the prescribed working conditions is universally lower (and negative) in the lower developmental

groups, while in the higher developmental groups it is higher and almost always positive. Similar trends were found in preferred program placement (when this variable is conceptualized on a continuum representing level of restrictiveness or degree of normalization) and in parental attitude toward work.

The groups which responded similarly on three of the dependent measures, (1) total preference score, (2) preferred placement and (3) attitude toward work, were identified by post-hoc analyses as well as the groups that showed significantly different responding. These are given below for each dependent variable.

1. Total Preference Scale Scores (i.e., the algebraic sum of the six single preference scores).

   Group A: Parents of borderline and mildly retarded persons responded similarly.

   Group B: Parents of moderate, severe and profound groups responded similarly.

   *Groups A & B, however, showed significantly different responding on preferences for the six working conditions.

2. Preferred Program Placement

   Group A: Parents of borderline and mild groups responded similarly.

   Group B: Parents of moderate and severe groups responded similarly.

   Group C: Parents of profound group differed from other groups on preferred placements.

   *Groups A, B., & C showed significantly different responding on preferred program placements.

3. Attitude That Work is Normal to Life

   Group A: Parents of borderline and mild groups responded similarly.

   Group B: Parents of moderate and severe groups responded similarly.

   Group C: Parents of profound group differed from other groups on general attitude toward work.

   *Groups A, B, and C) showed significantly different responding on general attitude toward work.

The differing attitudes of the five I.Q. level groups can be seen by the display of group means in Table 4. On preference for prescribed working conditions items 1 through 7, a negative (-) value indicates low or negative parental attitude toward the working condition, a (0) value indicates satisfaction with what they believe to be the frequent exposure their child has to this practice; and a positive (+) value indicates a preference for more exposure for their child to the condition. Values can range from -2 to +2. Mean scores shown for preferred program placement, item 8, in Table 4, represent the following: 1=institution, 2=home (no program), 3=an activities center placement, 4=a sheltered workshop, and 5=competitive employment placement. Likewise, mean scores showing parental attitude that work should be a normal part of life are: Strongly Disagree=1; Mildly Disagree=2; Not Sure=3; Mildly Agree=4; and Strongly Agree=5.

Increased Wages

Examination of groups means in Table 4 show that parents of all disability groups indicate negative or low interest in increased wages. The lowest values were calculated for parents of profoundly handicapped children and the highest value (though still negative) was found for parents of the borderline mentally retarded group. Other differences in the attitudes by developmental level of the child on the other dependent variables will be briefly described below.

Profoundly Handicapped Group

Parents/guardians of the profoundly handicapped group yielded negative or low interest responses for all of the recommended improvements in working conditions. They indicated particularly low acceptance of their children performing the same tasks as nonhandicapped persons and in being exposed to increased responsibility. The condition for which these parents showed most

acceptance was increased interactions with nonhandicapped persons but this still fell in the negative range. As can also be seen in Table 4, on the average these parents chose an activity center ($\bar{x}$=2.87) for the optimal placement, and parents of profoundly handicapped showed a mean response of "not sure" ($\bar{x}$=3.08) that work should be a normal part of life for their children.

Severely Handicapped Group

Parents of severely handicapped persons responded similarly to the profoundly handicapped group on their lack of interest in each of the more normalized working conditions. Thus, they were most negative about increased wages, responsibility and performing the same tasks as nonhandicapped persons. These parents, however, showed a satisfaction value (near zero) for their childrens' interactions with nonhandicapped coworkers, i.e., they believed their children were frequently exposed to nonhandicapped persons and they were satisfied. They selected an activity center ($\bar{x}$=3.27) as the optimal placement for their children and also showed a mild agreement with the concept that work is normal ($\bar{x}$=3.90) in contrast to the uncertainty of parents of profoundly handicapped.

Moderately Handicapped Group

Parents of moderately handicapped adults responded more similarly to the severe/profound groups than to the mild and borderline groups in that they also showed negative interest in wages, expectations for more "normal" behavior, increased responsibility and performing the same tasks as nonhandicapped persons. They showed satisfaction in what they considered "frequent" exposure to opportunities to work with less supervision and to interact with nonhandicapped persons. They showed a mid-range response for preferred program placement between activities centers and sheltered workshop ($\bar{x}$=3.58)

and showed mild agreement ($\bar{x}$=4.30) with the concept of work being a "normal" part of life for their child.

Mildly Handicapped and Borderline Group

Parents of mildly and borderline handicapped individuals showed significantly more positive values on the preference scale for more normalized working conditions with the exception, as stated above, of increased wages. Both groups showed a trend toward a preference for their children to be exposed to programming with less supervision, but only the borderline group showed that same trend toward preferring increased interactions with and performing more of the same tasks as nonhandicapped persons. Group means also showed that the parents of mildly handicapped and borderline mentally retarded persons ($\bar{x}$=4.0 and =4.3 respectively) preferred they be placed in sheltered workshops. Both groups strongly agreed ($\bar{x}$ = 4.74 and 4.78 respectively) with the concept that work should be a normal part of life for their children.

Discussion

The sampling procedures selected served the investigation well in that this survey was designed to examine the attitudes of a representative sample of parents or guardians of mentally retarded adults who are currently being served within the adult service systems in Virginia. Logic tells us that the majority of these individuals would indeed be in their 20's and 30's due to the post-war baby boom, with a lower incidence of severe and profound disabilities. We also expected a naturally larger percentage of moderately handicapped individuals because many mildly involved would not necessarily require adult mental retardation services. We assumed further that most would live at home due to deinstitutionalization efforts. As evidenced by Table 1, the sample of this investigation does appear to be most representative of the range of individuals who are in need of adult services. Confidence is,

therefore, increased in the generalizability of these results.

As anticipated, parents did not prefer the recommended improvements in the working condition now guiding federal policy (e.g., increased wages, responsibilities, etc.). In general, although parents agreed with the concept of work being a "normal" part of life for their child, parents appeared satisfied with what would generally be considered by the nonhandicapped population as poor working conditions experienced by their sons/daughters (i.e., low pay, low responsibility, etc.) Parents also showed satisfaction with the current vocational placements available for their sons/daughters. Parents were particularly negative about increased wages and responsibilities for their sons/ daughters. These apparent inconsistencies in parental/guardian thinking may echo previous research findings, which show that survey respondents may indicate positive attitudes toward philosophical constructs but show more negative attitudes when such constructs may actually affect them or their children personally (Ferrara, 1979).

Age of the child and educational level of the parent had no significant effects on the response patterns. Level of development (IQ) did show highly significant effects on the dependent measures. Developmental level consistently exerted influence on all measures including preferences for the improvements in working conditions, the selection of the optimal vocational placement, and the attitude that work is a normal part of life. This finding runs contrary to Ferrara's (1979) more limited survey results of parental attitudes toward general normalization practices, which found no effect of level of retardation on attitudes. The present investigation with its more representative sample shows very powerful influence of the child's IQ level on the attitudes of his/her parents. The influence of this variable is so clear that its effects are seen on every dependent measure with more positive

attitudes increasing gradually with each higher I.Q. level.

Interestingly, results show that parents of persons who are moderately retarded tend to respond more similarly to parents of severely and profoundly handicapped than to parents of the mild or borderline group. Why parents of moderately retarded persons consistently show significantly more negative expectations for increased wages, responsibility, etc., than parents of more mildly handicapped is not completely understood in that the moderately handicapped individuals tend to have characteristics more similar to persons diagnosed as more mildly handicapped than to severely/profoundly individuals. Persons with severe or profound handicaps often have secondary physical or sensory handicaps while most moderately mentally retarded people do not. Yet parents of moderately handicapped tended to concur more with the more severely involved group regarding working conditions for their children, program preferences, and attitude toward work. It is possible that the attitudes of these parents may have been influenced by the highly restrictive/protective services traditionally supplied to the persons who are moderately retarded, particularly at the school-age level but also often at the adult service level in the form of the activity center or developmental center placement.

The results of this investigation tell us, perhaps, not surprisingly, that much more parent/professional communication is needed to improve parental expectations for the vocational potentials of their children who are mentally retarded. General results show that at present, parents' expectations do not concur with the recently described professional expectations found in federal policy that most persons who are mentally retarded can transition into the mainstream of employment. Results also indicate that parents will not accept the recent trend to change the status of the mentally retarded adult from tax-burden to taxpayer without many more assurances than are currently provided.

More specifically, these data show that all parents but especially those with children functioning at lower developmental levels, need to be drawn into the educational process to improve the description of what adequate working conditions for mentally retarded persons ought to be. Parents also need to begin to evaluate current services in a more critical manner. For example, these survey results show most parents/guardians believe their sons and daughters are currently interacting with nonhandicapped peers on a frequent basis and most expressed satisfaction with this exposure. Unfortunately, the types of program placements that 95% (only 5% of this sample was in competitive employment) of their sons/daughters were currently attending do not include frequent exposure to nonhandicapped peers. Thus, parents are not critically evaluating programs regarding this issue, in particular.

These survey data illustrate vividly the need for the development of a parent/professional partnership toward improved vocational services for disabled persons. Parents' concerns must be analyzed in this process, for many of these concerns are undoubtedly due to financial discentives which exist regarding loss of government aid payment if these individuals join the competitive work world. This concern was voiced clearly in these results, in that all parents, even of mildly handicapped individuals, showed no preferences for improved wages. This is a legitimate and serious concern on the part of the parents, which illustrates that only by directly identifying parents' concerns and obstacles can we develop improved services for disabled persons. If an improved communication process can be established between parents and professionals on vocational issues, parents will once again be called upon to assume the role of major change agent for improved vocational services for handicapped adults - the same role they held over a decade ago for free and appropriate public school services for all handicapped children.

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Table I
Characteristics of the Population

Mentally Retarded Persons in Question	
Sex	
Male	59%
Female	41%
Age	
17 or less	2%
18 - 22 years	17%
23 - 30 years	39%
31 - 40 years	29%
41 or over	13%
Developmental (IQ) Level	
Profound (IQ 19 or below)	9%
Severe (IQ 20-35)	21%
Moderate (IQ 36-51)	39%
Mildly (IQ 52-67)	19%
Borderline (IQ 68-83)	12%
Residential Situation	
State Institution	14%
ICF/MR	6%
Living w/parents/relatives	64%
Group Home	12%
Special Apartment	1%
Other	3%
Foster	1%
Primary Form of Communication	
No meaningful form	7%
Sounds/Gestures	9%
One-or-two-word phrases	10%
Speaks in sentences (Unclear)	33%
Speaks in sentences (Clear)	38%
Manual Sign	3%
Personal Hygiene Assistance Needed	
Total	12%
Major	7%
Some	18%
Minor	23%
None	39%
Secondary Disabilities	
Sensory impairment	20%
Amublation impairment	20%
Fine Motor impairment	14%
No other impairment	56%

Respondents	
Educational Level	
Not beyond 8th grade	21%
Not beynd 12th grade	41%
Technical/Post-High School	9%
College	29%
Occupation of Chief Wage Earner	
Farm	3%
Protective or Svs. Wkr.	13%
Manual Laborer	13%
Clerical Person	5%
Business Person	5%
Proprietor/Manager	5%
Professional	22%
Not working	27%
Retired	6%
Sex of Respondent	
Male	25%
Female	73%
Relationship to Client	
Mother/Father	87%
Relative	9%
Legal Guardian	3%
Foster Parent	1%
Friend	.5%

Table 2

PARENTAL ATTITUDES TOWARD WORKING CONDITIONS

Perceptions of Current Working Conditions		Preferred Working Conditions for Child	
Average Current Wages		**Preferred Waged**	
No Pay	41%	No Pay	5%
Less than $1/hour	23%	Less than Now	.4%
$1.01 to $2.50/hour	10%	Same as Now	49%
$2.51 to $3.34/hour	3%	More than Now	25%
Above $3.35/hour	3%	Much More	12%
Don't Know	21%	Not Sure	9%
Current Interaction With Nonhandicapped		**Preferred Interactions**	
Never	7%	Less than Now	2%
Rarely	13%	Somewhat Less	4%
Sometimes	22%	Same as Now	54%
Frequently	46%	Somewhat More	30%
Don't Know	11%	Much More	10%
Current Responsibility and Advanced Opportunities		**Preferred Responsibility and Advancement Opportunities**	
Never	36%	Less than Now	0%
Rarely	13%	Somewhat Less	.4%
Sometimes	28%	Same as Now	59%
Frequently	25%	Somewhat More	28%
Don't Know	17%	Much More	12%
Current Level of Work Without Supervision		**Preferred Level of Work Without Supervision**	
Never	17%	Less than Now	0%
Rarely	13%	Somewhat Less	2%
Sometimes	28%	Same as Now	52%
Frequently	25%	Somewhat More	29%
Don't Know	17%	Much More	17%

Table 2 - Continued:

Requirements to Exhibit "Normal" Behavior During Work		Preferred Level of Requirements to Exhibit "Normal" Behavior During Work	
Never	14%	Less than Now	3%
Rarely	7%	Somewhat Less	5%
Sometimes	16%	Same as Now	66%
Frequently	25%	Somewhat More	20%
Don't Know	38%	Much More	7%
Current Performance of Same Tasks as Nonhandicapped Workers			
Never	19%	Less than Now	9%
Rarely	14%	Somewhat Less	3%
Sometimes	19%	Same as Now	61%
Frequently	21%	Somewhat More	28%
Don't Know	2o%	Much More	7%

Vocational Placement

Current Placement		Preferred Placement	
Institution	10.4%	Institution	5.6%
Home (no program)	17.2%	Home	4%
Activities Center	23.3%	Activities Center	25.6%
Sheltered Workshop	43.7%	Sheltered Workshop	52%
Competitive Employment	5%	Competitive Employment	12.8%

Attitudes Toward Work

Work should be a normal part of life for my son or daughter.

Strongly Disagree	Mildly Disagree	Not Sure	Mildly Agree	Strongly Agree
4%	2%	18%	16%	60%

Table 3

Preferred Program ANOVA Results and Group Means

Dependent Variable	1 F	df	2 Insti.	Preferred Program Group Means - Home	Activity Center	Shelt. Workshop	Comp. Emp.
Increased Wages	11.67*	198	-1.00	-1.00	-0.96	-0.67	0.12
Interaction With Nonhandicapped	3.41	229	-0.64	-0.50	-0.27	-0.31	0.45
More Responsibility	14.41*	190	-1.00	-1.00	-0.51	-0.07	0.81
Less Supervision	7.73*	228	-0.92	-0.89	-0.10	-0.27	0.70
Higher Behavior Expectations	9.30*	203	-1.00	-0.78	-0.49	-0.16	0.76
Same Tasks as Nonhandicapped Coworkers	7.45*	212	-1.00	-0.78	-0.33	0.00	0.59
Total Preference for Improvements	13.48*	148	-5.86	-4.50	-2.32	-0.40	4.53

1* $p < .0001$
$p < .05$ for all others

2 numerator $df = 4$

Table 4

Developmental Level ANOVA Results and Group Means

Dependent Variable	[1] F	df	[2] --Developmental Group Means-- Profound	Severe	Moderate	Mild	Borderline
1. Increased Wages	4.12*	206	-1.00	-0.90	-0.72	-0.44	-0.38
2. More Interactions	2.50	237	-0.25	0.11	0.22	0.24	0.60
3. Higher Responsibility	6.65**	192	-0.61	-0.59	-0.21	0.14	0.44
4. Reduced Supervision	3.58	234	-0.30	-0.06	0.11	0.38	0.67
5. Adult-like Behavior	6.23**	210	-0.64	-0.42	-0.31	0.24	0.33
6. Same Tasks as Nonhandicapped	9.28**	219	-0.77	-0.55	-0.04	0.24	0.63
7. Total P Score	9.27**	150	-3.88	-3.25	-1.31	1.50	2.30
8. Preferred Program	13.20**	235	2.87	3.27	3.58	4.0	4.3
9. Attitude Toward Work	15.13**	249	3.08	3.90	4.30	4.74	4.78

[1]
** $p < .0001$
* $p < .01$
$p < .05$ for all others

[2]
numerator $df = 4$

Interpretation of Group Mean Values

Items 1-7 (negative (-) value = low parental interest; zero (0) value= satisfaction with current high exposure; positive (+) value = high parental interest).

Item 8 (3=Activities Center; 4= Workshop; 5=Competitive Employment).

Item 9 (3=Uncertain work should be normal part of life; 4=mildly agree; 5=strongly agree).

FACTORS INFLUENCING PARENTS' VOCATIONAL ASPIRATIONS FOR THEIR RETARDED CHILDREN

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Abstract

Parents' vocational aspirations for their children are based on assessments by the children's abilities and of employment opportunities. Aspirations held by parents of mentally handicapped persons are tempered by knowledge of the children's limitations and of restricted opportunities. This research was intended to develop a measure of parents' vocational aspirations for their retarded children and to examine relationships between aspirations and other factors. A 32-item Likert type questionnaire was mailed to members of a stratified random sample of parents and guardians of retarded persons identified from files maintained by community services agencies. Respondents were 233 parents from this group. Data were analyzed using multiple regression, with the vocational aspiration score serving as dependent variable. The equation accounted for 26 percent of the variance. Significant factors were parents' attitudes toward work as a normal part of life, child's age, and child's developmental level.

Factors Influencing Parents' Vocational Aspirations for Their Retarded Children

In recent years a number of programs have been developed to teach vocational skills to mentally retarded persons (Bellamy, Horner, & Inman, 1979; Mithaug, 1981). Some of these programs go further and provide job placement and follow-up services to their clients (Rusch & Mithaug, 1980; Wehman, 1981). In keeping with the trend toward normalization in many aspects of society's attitudes toward persons with mental retardation, these programs have helped mentally retarded workers gain employment in which they work beside and perform the same tasks as nonhandicapped workers.

Vocational training and placement of retarded persons have important potential benefits for the individuals involved, including enhanced feelings of efficacy and self worth. But there are offsetting dangers and disadvantages as well. These include the possibilities of physical injuries (Lynch, 1979), exploitation, abuse, and loss of guaranteed financial aid payments (Kochany & Keller, 1981). Parents of retarded people may be either well informed or poorly informed about the benefits and potential disadvantages of employment. Based upon the information they have, they formulate notions about the kind of work their child is capable of doing and of the type of work setting which is most appropriate for their child. All parents hold idealized expectations of their child's potential and prospects in the world of work (Venn, DuBose, & Merble, 1977). These expectations may be either realistic or unrealistic (Johnson & Capobianco, 1957).

These notions, which we are calling vocational aspirations, range from the identification of specific occupations with some parents to broad, overarching goals having to do with education and the quality of life, for others. Parents' aspirations are influenced by what they believe to be of most value in life and by

the relative importance they attach to such motives as material well-being, personal achievement and recognition, interpersonal competition and success, emotional/material security, and so on. Parents are also influenced by their own definitions of the purpose and meaning of work. Kahn (1981) reports that a majority of all employed Americans say they would continue to work even if it were not necessary financially for them to do so. For these people, the social and psychological rewards they derive from their jobs exceed the economic benefits they receive. Presumably, their aspirations for the children would include work.

Vocational aspirations are obviously influenced by parents' beliefs about their children's interests and abilities. For mentally retarded persons, ability is a primary consideration governing vocational prospects (Olskansky & Schonfield, 1965). Although the likelihood of success in a given job is influenced by many factors other than mental ability, there are threshold requirements in most occupations which effectively close out some persons from entering those fields. For retarded persons, even the logistics of daily life (for example, telling time or traveling on a public transportation system) are challenges that often limit their immediate prospects for gainful employment.

Parents presumably consider all of these factors in arriving at some determination of their children's vocational abilities and prospects. The process is not as rational as depicted here, however, since parents operate with limited information about their children and about the specifics of job requirements and opportunities and about labor market conditions. Other factors also play a part in determining parents' opinions about vocational choices for their children, as we have observed earlier.

To gain a clearer understanding of the factors that shape parents' vocational aspirations for their retarded children, we undertook a major study of this subject using a sample of parents of retarded persons in Virginia. Two primary

objectives guided this research. The first was to develop a measure of parents' vocational aspirations for their retarded children. The second objective was to determine the extent to which factors such as parents' educational level and attitude toward work and the retarded person's age and sex influenced those aspirations.

Method

Sample

The respondents in this study were mothers or fathers of mentally retarded persons 17 years of age or older who had received or were receiving services from one of several community services agencies in Virginia. All of the agencies were semi-autonomous arms of state government and were the means by which state funds and policy decisions were transmitted to localities. Some of the agencies offered services such as adult activity centers, sheltered workshops, summer camps, and transportation for mentally retarded persons in their localities, while others contracted with private suppliers to provide those services. The level of services offered varied, depending, among other things, on the size of the client population in a locality.

The 40 community services agencies in Virginia were stratified by size of client population and geographic region (McCall, 1980). The three levels of client population size and five geographic regions produced 15 cells, and one service agency was selected at random from each cell containing two or more agencies. Where cells contained only one agency, that agency was included in the sample. Fourteen of the 15 sampled agencies agreed to participate in the study.

From the client files of each of the participating agencies, a 20 percent systematic sample of clients' names was drawn following a random start. The selection criterion required that a client be 17 years of age or older and identified as mentally retarded by the agency. If a client failed to meet the

criterion, his or her name was deleted and the next name in the file was chosen. If that person failed to meet the criterion, the next name was examined. The process continued until a qualified candidate was obtained. A questionnaire was mailed to the person listed by the agency as the retarded person's parent, guardian, foster parent, or next of kin. A total of 660 questionnaires were mailed, of which 48 were subsequently returned as undeliverable by the Postal Service. Usable responses were received from 269 individuals, of whom 233 were parents. The present study used data furnished by the 233 parental respondents.

Instrument

The Parent-Guardian Attitude Survey was developed over a six month period by a research team which included experts in mental retardation and survey research methodology. The instrument was validated in two ways. First, experts in mental retardation were asked to judge whether the items were satisfactory operational measures of the variables of interest. Secondly, parents of retarded persons were interviewed after they had completed the questionnaire. Information from these sources was used to refine and clarify a number of items.

The final version of the instrument consisted of 32 items. A series of paired questions asked respondents, first, to specify the existing level of a program or employment characteristic available to their mentally retarded son or daughter and, second, to report their preference for the level of that characteristic.

Two sample items were:

1. At present, how often does your son or daughter complete the same work tasks as nonhandicapped persons?

   Response choices were: Never, rarely, sometimes, and frequently, scored 1 to 4 respectively.

2. In your opinion, how often should your son or daughter complete the same work tasks as nonhandicapped persons?

Response choices were: Much less than now; somewhat less than now; same as now; somewhat more than now; much more than now; scored 1 to 5.

Other items dealt with present and preferred levels of income, contact with nonhandicapped pesons, opportunity for promotion, freedom from supervision, and expectation to look and act "normal". Other items asked for demographic information and about the attitude that work should be a normal part of life for their child.

A scale to measure parents' vocational aspirations for their children was developed by summing responses to three items. The first measured parents' preference for the frequency with which their child should be promoted to a job involving more pay or greater responsibility. Tne second item asked parents to report how often they preferred their son or daughter to work on his/her own "without a supervisor nearby to help," and the third item asked how often parents felt their son or daughter should complete the same work tasks as nonhandicapped persons. The items were selected as representative of characteristics identified as desirable in their jobs by workers in a variety of settings.

Possible scores on the vocational aspiration scale ranged from 3 to 15. A higher score indicates a greater parental preference for their retarded sons and daughters to work in settings characterized by relatively high levels of autonomy and responsibility and by low levels of discrimination in assignment of work tasks. The mean score on the vocational aspiration scale for all responding parents was 10.53 (S.D. = 1.76, N = 163). (The number was less than the total number of respondents because of nonresponses). Internal consistency reliability for the scale was .72, as measured by Cronbach's alpha.

Eight variables were examined for their effect on the parents' vocational aspiration scale score. These variables were:

1. Attitude toward work. Parents responded on a 5-point agree-

disagree scale to the statement "Work should be a normal part of life for my son or daughter." Responses were recoded so that a higher score indicated stronger agreement.

2. Parents' education level. Four levels of schooling were provided: 1 to 8 years, 9 to 12 years, post high school technical training, and college, coded 1 to 4 respectively.

3. Age of son or daughter. Five age levels were provided: 17 years or less; 18-22 years; 23-30 years; 31-40 years, 41 or over. Responses were coded 1 to 5 respectively.

4. Sex of son or daughter. Responses were coded 1 (female) or 2 (male).

5. Size of community agency. Agencies were classified by the size of the mentally retarded clientele served. Stratum 1 included agencies with up to 120 clients; stratum 2 included agencies with between 121 and 250 clients; and stratum 3 included all agencies with more than 250 clients. Of the 14 agencies sampled, 5 were in stratum 1, 5 in stratum 2, and 4 in stratum 3. Stratum 1 was coded 1; stratum 2 was coded 2; and stratum 3, coded 3.

6. Program. Programs were ranked on a 4-point scale as follows: 1 - Activities programs, home, institution and school; 2 - sheltered workshops; 3 - enclave employment; and 4 - competitive employment.

7. Developmental level. A five point scale was used, ranging from profoundly retarded (IQ 19 or below), coded 1, to borderline (IQ 68-83), coded 5.

8. Assistance required in personal care. A five point scale was used with responses ranging from nearly total assistance required, coded 1, to no assistance required, coded 5.

Results

Means and standard deviations for eight independent variable and one dependent variable used in the multiple regression equation are reported in Table 1. Parents disagreed with the statement that work should be a normal part of life for their sons and daughters. The mean response to that item was 1.48; the maximum possible score was 5.00. Mean response to the question dealing with level of educational attainment fell between 2.00 (completed grades 9 to 12) and 3.00 (attended post high school technical school). The mean response to the question on the age of the son or daughter fell between 3.00 (23 to 30 years) and 4.00 (31-40). The mean response to a question dealing with the amount of assistance required by the son or daughter was 3.71, which fell above 3.00 (some assistance required) and below 4.00 (minor assistance required).

Table 2 reports intercorrelations among the eight independent variables. The variables parents' education and age of son or daughter were negatively correlated at the .05 level of significance. Age of the son or daughter was negatively correlated with program placement, also at the .05 level. Parents' education and program placement were negatively correlated at the .01 level of significance.

Four pairs of variables were correlated at the .001 level of significance. Parents' attitude toward work was negatively correlated with the level of assistance required by the son or daughter and with the child's developmental level, and developmental level was positively related to level of assistance. Finally, parents' education was positively related to agency size.

Multiple regression was used to assess the effect of the eight independent variables on parents' vocational aspirations.

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Insert Table 1 & 2 about here
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The results of the multiple regression appear in Table 3. The F value of

6.01 is significant beyond the .0001 level of probability, but the eight variables account for only about one-fourth of the variance in parents' vocational aspiration scores.

The use of t-tests showed that three of the eight variables explained significant amounts of variance in the dependent variable. Parents' attitude toward work as a normal part of life for their son or daughter had an estimated beta of -0.57, indicating that parents with more favorable attitudes toward work were less likely to hold high vocational aspirations. The t score of -2.96 was significant at the .004 level.

The son's or daughter's age was the second significant variable. The t score of -2.46 ($p < .015$) and beta estimate of -0.35 indicated that parents of older persons held lower aspirations when compared with parents of younger persons. The child's developmental level was the third significant variable in the equation. A t score of 3.04 ($p < .003$) and estimated beta of 0.45 suggested that parents of children with higher developmental functioning held higher vocational aspirations for their children when compared with parents whose children functioned at lower developmental levels.

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Insert Table 3 about here

- - - - - - - - - - - - - - - - -

Discussion

Why should parents' vocational aspirations for their children change over time, as the children age? Several possible explanations will be examined. One explanation holds that the mediating variable for parental aspirations is the child's developmental level. The argument suggests that as a child grows older, parents have more information on which to base such judgements and that they adjust their aspirations to bring them more nearly into line with the child's demonstrated potential. Declining scores would indicate that parents' initial

judgements of their children's abilities had been unrealistically high, while rising scores would suggest that parents had initially underestimated their children's capabilities.

A second explanation begins with the assumption that vocational opportunities are more limited for older, as compared to younger, workers. Thus, parents may be accommodating to the realities of labor market conditions by adjusting their aspirations in light of vocational opportunities available to their children. If this explanation is correct, we would expect vocational aspiration scores to decline over time, as a child's increasing age becomes a greater limitation on his or her employment prospects.

The Spearman correlation of rho = -.16 ($p < .03$) between parent's aspiration scores and the age of their mentally retarded sons and daughters does not permit us to rule out either of these two possibilities. We can say only that it is unlikely, based on these data, that parents form unrealistically low conceptions of their children's vocational prospects and later raise their aspirations. Whether parents adjust their aspirations because of earlier overly optimistic estimates of their children's potential or because of awareness of an age bias factor in employment decisions is unclear. It is possible, of course, that both factors play a part.

The explanations advanced here assume an absence of a generational influence. However, as attitudes toward the handicapped evolve and change parent's vocational aspirations would be expected to change at the same time. Thus, higher aspirations held by parents of younger persons may reflect changing attitudes about the suitability of vocational programs for retarded persons.

Both developmental level and parents' attitude toward work explain significant amounts of variance in parent's aspiration scores, yet the assistance required variable contributes nothing to the regression equation. The

explanation for that unexpected finding can be found by examing the zero order correlations of those three variables in Table 2. All three are intercorrelated at a highly significant level. The assistance required variable was entered later than the other two into the regression equation and its effect on the parents' vocational aspiration scores was thus attenuated.

Another perspective on these changes in parents' aspiration scores over time explains them as a function of the parents' age. There is some evidence that as parents age and face their own mortality, they attach less importance to their children's vocational success. According to this view, the focus of their concern shifts away from attention to developmental opportunities for the child toward providing for care and support of their children in the future, when the parents are no longer on the scene (Kotsopoulos & Matathia, 1980). If this is true, earlier attention to employment prospects for retarded persons in the public schools (Wehman, 1983) must be considered, along with provision for parental involvement at earlier ages of their children.

Summary

The purpose of this research has been to develop a measure of parents' vocational aspirations for their retarded children and to identify factors which influence those aspirations. The measure of vocational aspirations used attains a satisfactory level of reliability and touches on three aspects of work which are considered desirable by most people. The three are autonomy in deciding how to perform the work, the opportunity to advance to positions of greater pay and responsibility, and the opportunity to perform tasks that challenge ones ability.

The multiple regression analysis shows that parents' vocational aspirations are influenced by children's characteristics (age and developmental level) and by parents' values and beliefs (attitude toward work). Other characteristics of children (sex) and the parents (education) appear to have little or no impact.

The failure of parents' educational level to influence the aspiration score is somewhat surprising, as is the negative correlation (rho = -.19) between parents' level of education and program type. Further research to clarify the meaning of those findings is needed.

Agency size appears to be unrelated to parents' aspirations for their children. Agency size is a proxy for urbanism, since larger agencies are more often found in or near cities and these agencies may tend to offer a greater variety of and more innovative programs. It was assumed that parents served by those agencies would have more knowledge of potential vocational opportunities for their children and hence would adjust their vocational aspirations accordingly. This line of reasoning assumes that parents who are aware of programs which offer the possibility of increased independence and self-reliance for their retarded children will express a preference for such program features. However, we found no evidence that that, in fact, happens. Several explanations are possible. One such possibility is that many parents remain unaware of alternative program options even though they may live in communities in which such alternatives are now available. Another possible explanation is that there is less difference than we assumed in the type and quality of programs offered for retarded persons in rural areas and small towns on the one hand as compared with program offerings available to city dwellers, on the other.

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Table 1

Means and Standard Deviations for Eight Independent Variables and One Dependent Variable

	Independent variable	N	Mean	S.D.
1.	Attitude toward work	229	1.48	0.74
2.	Parent's educational level	222	2.50	1.11
3.	Age of son or daughter	233	3.21	0.92
4.	Sex of son or daughter	230	1.60	0.49
5.	Agency size	232	2.22	0.62
6.	Program type	228	2.79	1.59
7.	Developmental level	225	3.08	1.10
8.	Assistance required	231	3.71	1.38
9.	Vocational aspiration	190	10.43	1.74

Table 2

Matrix of Spearman Rho Correlation Coefficients
for Variables Used in the Multiple Regression

	Variable	1	2	3	4	5	6	7	8
1.	Attitude	---	-.09	-.06	-.04	.11	.06	-.27***	-.31***
2.	Education	219	-	-.15*	.06	.23***	-.19**	.08	.08
3.	Age	229	222	---	-.08	-.03	-.15*	.07	.11
4.	Sex	227	220	230	---	-.04	.03	.00	.05
5.	Agency size	228	222	232	229	---	-.07	.04	.04
6.	Program	226	217	228	225	227	---	.02	.04
7.	Developmental level	221	215	225	222	225	221	---	.63***
8.	Assistance	227	220	231	228	230	226	223	---

(Upper left entries are the correlation coefficients; lower left entries are sample sizes.)

* P < .05
** P < .01
*** P < .0005

Table 3

Results of the Multiple Regression of Parent's Vocational Aspiration Scores Upon Eight Dependent Variables

Independent Variables	Estimate of Beta	t	Prob.
1. Parent's education level	0.05	0.42	.678
2. Attitude toward work	-0.57	-2.96	.004
3. Age of son or daughter	-0.35	-2.46	.015
4. Sex of son or daughter	-0.22	-0.85	.396
5. Program	-0.09	-1.04	.299
6. Developmental level	0.45	3.04	.003
7. Assistance required	0.08	0.65	.517
8. Agency size	-0.26	-1.22	.223

$F = 6.01$ (df = 8, 140) $p < .0001$ $R^2 = .26$

HELPING YOUR CHILD WITH SEVERE DEVELOPMENTAL DISABILITIES RECEIVE VOCATIONAL TRAINING AND EMPLOYMENT: GUIDELINES FOR PARENTS

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Abstract

This paper delineates a number of steps that parents of children with severe developmental disabilities can take to help their children receive appropriate voctional training and employment. Guidelines for improving vocational training and the potential for employment are provided for elementary, middle school, and high school aged children. As well, suggestions for things to do with a child and for a child with severe developmental disabilities are presented.

Guidelines for the elementary school level revolve around the training of self-care and daily living skills and the development of positive human relationships and good social skills. Middle school guidelines emphasize the beginning of specific vocational training on a variety of jobs in community-based settings. High school guidelines focus on the development of a formal, written transition plan specifying the movement from school to work and on the identification and training of an appropriate job for the student before graduation.

Helping Your Child With Severe Developmental Disabilities Receive Vocational Training and Employment: Guidelines for Parents

As the first generation of students with handicaps served by Public Law 94-142 leave school, these citizens, as well as their families and professionals who have worked with them, are increasingly dismayed with the lack of opportunities and appropriate vocational services (Bruder, Pentecost, Pendleton, Cunningham, & Jordan, 1984). Families who have grown accustomed to services under a legally mandated and federally coordinated school service system learn that adult services such as vocational rehabilitation do not operate under entitlement (Elder, 1984). This is particularly true in terms of the provision of remunerative work, the expected outcome of school preparation. Parents, teachers, and school officials are often shocked to find that students with adequate job skills and appropriate social skills graduate and then sit at home for years (Hasazi, Preskill, Gordon, & Collins, 1982; Wehman & Kregel, 1984). On the other hand, rehabilitation service agencies may not know the vocational potential of certain graduates when formal transition planning has not been initiated by the school system. The bottom line is that 50 to 75% of all persons with disabilities are unemployed (U. S. Commission on Civil Rights, 1983), and the more severe the handicap, the less the likelihood that the person effected will ever be employed. A recent state-wide survey regarding persons who are mentally retarded showed that less than five percent of these individuals were competitive employed (Hill, Seyfarth, Orelove, Wehman, & Banks, 1985).

In fact, students who are severely developmentally disabled or those who may have been labeled as moderately, severely, or profoundly retarded, autistic, multiply handicapped, or severely physically handicapped, have typically not been placed on the caseloads of vocational rehabilitation

agencies which traditionally have provided vocational services for less disabled individuals (Office of Special Education and Rehabilitative Services, 1984). The result is that most severely handicapped citizens usually end up in a day activity program which often does not provide paid employment opportunities, or they remain at home without any programming. This is both unfortunate and unnecessary since it has been repeatedly shown that persons with severe handicaps can work when an appropriate on-going, or supported employment training program is provided (Bellamy, Sowers, & Bourbeau, 1983; Wehman & Kregel, 1984).

In the late 1970's and 1980's a number of model vocational training and job placement and training programs demonstrated the ability of the adolescent and adult with severe handicaps to work in nonsheltered jobs. Wehman and his colleagues at Virginia Commonwealth University (Wehman, 1981) and Rusch and his colleagues (Rusch & Mithaug, 1980) in Illinois have shown the ability of citizens with moderate and severe handicaps to hold competitive jobs. Bellamy Horner, & Inman, 1979) have shown that even profoundly retarded persons can work in a specialized industrial setting which pays a decent wage and allows the worker to have regular contact with nonhandicapped persons. Other work alternatives such as mobile work crews and work stations in industry have also been used to successfully employ citizens with severe handicaps (Wehman & Kregel, 1984).

Unfortunately, the expectations and attitudes of parents of mentally retarded persons may not <u>yet</u> reflect the great progress which has been made in improving vocational services to disabled persons over the last decade. For instance, in the state of Virginia when parents were asked to indicate their degree of satisfaction with the current working conditions experienced by their son/daughter, the vast majority showed a preference to maintain

conditions and services in their current form of delivery. This preference included: 1) to continue the payment of little or no wages; 2) to require low levels of work responsibility; 3) to maintain the current (often low) expectations for "adult-like" behavior; 4) to maintain the current (often low) degree of interactions with nonhandicapped persons; and 5) to continue the need for current (often high) levels of supervision and simple repetitive tasks (Hill et al., 1984).

As a parent of a child with severe developmental disabilities, you no longer need to settle for placement of your child into an adult day program or a sheltered workshp that pays no wage or a very small sum of money paid only on a piece-rate basis. Rather, you must begin to critically evaluate the services available to your child and to settle for nothing less than excellence. This article outlines some steps you can take during your child's school years to insure that he or she receives the proper kind of vocational training and job placement.

Guidelines for Improving Vocational Training and Employment: Elementary School Level

Vocational training for elementary-age pupils who are developmentally disabled focuses on assisting them to develop: (1) self-care and daily living skills; (2) positive human relationships and good social skills at home and at school; (3) awareness of vocational opportunities at the upper grade levels and beyond (Clark, 1979; Herr & Cramer, 1984; Wehman & Pentecost, 1983).

For Your Child...

1. Familiarize yourself with your state's regulations dealing with the education of handicapped children. Write to your representative in Congress and in your state legislature encouraging their commitment to legislation that will enhance the vocational training and employment opportunities for all

students. Find out about the policies of your local and state rehabilitation and developmental disabilities agencies regarding employment for the developmentally disabled. On a national level, employment has just recently become a priority for these agencies (Elder, 1984; Will, 1984), and there are now several government initiatives.

2. Work with your local schools to insure that vocational training and, in some cases, job placement is an integral part of your child's schooling. Be sure your child's current Individual Educational Program (IEP) specifically addresses employment training. Make sure that the IEP addresses any self-care skills such as eating, toileting, dressing, and grooming that your child does not have. These should be taught in the early school years so that middle and high school programs can lend more time to specific job training. Talk with school officials about employment training opportunities available in the upper grades and make sure that your child's teacher is preparing for the transition into these programs. See that students in special education programs are included in vocational education classes and special vocational-technical education training centers that many school systems now have.

3. Assign specific jobs/duties to your child around the home. Pay your child a small allowance based upon the successful completion of assigned tasks and insist that s/he perform his/her duties completely and on time. Encourage your child to manage his/her money and discuss how planning is essential to good money management. Encourage your child to make independent decisions and accept their consequences. Do not compare your child's efforts with the accomplishments of brothers, sisters, or friends, but rather have him or her continually improve upon his/her own performance.

4. Find out about successful school and adult training programs and

the variety of employment options that are now opening up for even profoundly handicapped citizens around the country. The list of resources included in this article should be helpful. Do not settle for the notion that your child cannot work!

With Your Child ...

1. Create opportunities for your child to learn about workers and what they do. Hummel and McDaniels (1979) encourage you to point out workers to your child when you go out in the community. Discuss what the worker is doing and encourage your child to think about what jobs s/he might like or not like. Share books, magazines, and pictures which introduce workers to your child. Be realistic about the types of jobs a retarded adult is likely to be successful in performing. Some jobs which have proved to be particularly good for disabled workers, including those who are severely handicapped, include: maid, orderly, janitor, auto mechanic helper, food service worker, porter, hand packer, laundry worker, farm laborer, and assembly line worker. Talk about the jobs performed by family members and friends. Discuss the rewards of working other than money, e.g. personal satisfaction, friendships, and independence.

2. Emphasize personal appearance, physical fitness, and good social and communication skills. Provide opportunities for daily physical exercise or activities so that your child will develop coordination, stamina, strength, and dexterity. Give your child the opportunity to practice independent eating, dressing, toileting, and grooming skills, and never do these things for the child. Encourage your child to develop acceptable social skills by having him/her interact with a wide-range of friends, relatives, peers who are not handicapped, and members of the community. It is essential that your son or daughter exhibit socially desirable behaviors and be able to relate with

other people if s/he is to hold a job.

Middle School Level

When a student who is severely developmentally disabled reaches the age of twelve or thirteen, a large portion of his or her school day should be devoted to specific vocational training on a variety of jobs in community-based settings (Bates & Pansofar, 1983). At this point, parents need to make sure that schools are providing community-based vocational training for at least several hours each day.

For Your Child...

1. Actively support the teacher's efforts to provide job training in community-based sites. Help the school identify training sites that are directly related to potential real jobs in the community. Such sites can be hotels, cafeterias, hospitals, and businesses in which family members or friends may work. At the very least, lobby for training in various school sites such as the grounds (grounds maintenance), cafeteria (food service worker), office (messenger), and overall building (janitor). Remember that training in a traditional classroom is the least desirable for students who are severely handicapped (Wilcox & Bellamy, 1982).

2. See that your child's IEP addresses specific vocational training in a variety of potential jobs. Do not settle for the notion of "pre-vocational" or "readiness" training that is supposedly related to specific job training. The only way your child will learn a real job is to practice these job skills in a real job setting.

3. Make sure that you know what job training is available for your child in the high school program. High school programs should include at least a half-day of job training and inclusion of some actual job placement and paid employment for students nearing graduation. There should also be

formal liaison between high school teachers and your local rehabilitative services agency. Find out whether this is occurring, and if not, insist that planning for transition from school to work begin to take place.

4. Get in touch with your local rehabilitation agency to find out about the training services and job possibilities available for your child. If the situation looks bleak in your community, insist that changes be made. Agencies have been mandated by federal governing bodies to increase services to citizens with severe handicaps.

5. Find work outside the home for your child to do during the summer, weekends, and after school. At this point, volunteer work is okay, for the essential factor is to get your child used to working. Having to follow a schedule, get to places punctually, and interact with people other than family members can never be practiced too much!

With Your Child...

1. Continue to work with your child on improving his/her appearance and physical fitness. Handicapped citizens are often turned down or let go from jobs because of their sloppy or dirty appearance or because of their supposed lack of initiative or laziness. Require your child to dress and maintain grooming habits like everyone else. Make sure that exercise is a regular part of each day to build strength and help control weight.

2. Require your child to complete household chores on a regular basis and provide an allowance only on the basis of correctly completing allotted chores. The value and importance of work can be reinforced at home by showing your child that everyone has certain important jobs to do, and that payment is based on doing the jobs correctly and on time. As a child gets older, you can assign more tasks and require that they be done in increasingly shorter periods of time. Complying with instructions, working at a fast

pace, and increasing work complexity are all important aspects of holding a job.

3. Continue to discuss the importance and benefits of work to your child. Point out workers who are performing jobs that he or she may be learning in school and discuss the benefits of holding a job such as wages, meeting new friends, and becoming an "independent adult."

4. Get your child into the community for leisure activities. Go to restaurants, movies, and community events. Take him or her to the grocery store to help with shopping and let your child help choose his or her own clothes. It is important that a person be able to behave properly in all settings and exposure is the best way to learn. Exposure is also necessary in terms of the general public accepting handicapped citizens as equal.

High School Level

By the time your child reaches high school or is between ages 15 and 16, a major part of his or her school day should be devoted to vocational training. By graduation time a specific job or an adult training program should have been identified for him or her by a team of professionals and family members. As a parent you may have to see that educators and adult service providers are formally planning the transition of your child from school to work.

For Your Child...

1. See that vocational training in specific jobs is built into your child's IEP. Teachers should have in mind for your child specific potential jobs based on both sheltered and competitive jobs available in the community. Insist that training for these jobs be conducted in community job settings as part of your child's IEP goals and objectives.

2. See that a transition team composed of yourself, the teacher, a

rehabilitation agency representative, and a local case manager from mental health/retardation services is formed to make plans for your child's employment after graduating. Advance planning in the form of written goals and objectives similar to an IEP is the best way to assure services for your child after graduation. Remember that adult services are not mandated by law as are school special education programs.

3. Encourage school personnel to find, place, and train your child in a job, full or part-time, that pays a wage while he/she is still in school. Because of the lack of mandated employment services for the severely handicapped and overload of clients on rehabilitation case managers, you should support job placement during the school years. It is easier for adult service providers to provide support services for someone already working than to have to start at the beginning.

4. Find out about all adult programs in your community and make a referral before graduation to have your child enter one where some sort of employment is offered if earlier employment cannot be secured. Of course, the most desirable option for your child is employment in a regular job that pays at or above minimum wage and decent benefits. If this is not attainable while your child is in school, see that s/he gets into a sheltered facility or adult program where the potential for employment exists. Such programs that offer a variety of employment options are the best. Many facilities are starting competitive work programs, work crews (groups of workers who are always supervised), or special industrial programs that pay some kind of wage and enable workers to spend time with nonhandicapped people. It is important to remember that your child is not automatically referred to such programs; however, you must take the lead on obtaining forms, making the referral, and ensuring that your child is on a waiting list, should this need arise.

With Your Child...

Continue to do all the things that you began while your child was in middle school. Promote exercise, good grooming, wise handling of money, and the completion of household chores. Allow your child to be as independent as possible and give him or her ample opportunities to get out into the community.

Information Resources

The following places should be able to provids you with specific information regarding employment options for citizens who are severely developmentally disabled.

Center on Human Development
Division of Special Education and Rehabilitation
Clinical Services Building
College of Education
Eugene, Oregon 97403-1211

Center for Developmental Disabilities
499C Waterman Building
University of Vermont
Burlington, Vermont 05405

Rehabilitation Research and Training Center
Virginia Commonwealth University
1314 West Main Street
Richmond, Virginia 23284-0001

Office of Special Education and Rehabilitative Services
c/o Mrs. Carol Inman
U. S. Department of Education
Room 3132 Switzer Building
330 "C" Street S. W.
Washington, D. C. 20202

National Rehabilitation Information Center
4407 Eight Street, N. E.
Washington, D. C. 20017

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ASSESSMENT OF PARENTAL CONCERNS REGARDING THE SKILL DEFICITS OF THEIR COMPETITIVELY EMPLOYED CHILD

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Abstract

The supported work model has traditionally provided skill training for job related behaviors only. This report provides evidence suggesting that such a model should also encompass skill development for responses not specifically related to job performance. Parents and guardians of clients placed into competitive employment through a special project were administered a phone survey to identify skill deficits exhibited by the clients and perceived by the parents to be in need of remediation. Money related skills were most frequently cited by parents as the skill most in need of development. Additional community functioning skills were also reported. These results further support previous research suggesting that drastic changes often occur in the lives of mentally retarded people as they enter the competitive job market. Suggestions for the employment specialist and special educator are made in light of these results.

Assessment of Parental Concerns Regarding the Skill Deficits of Their Competitively Employed Child

The employability of mentally retarded adults within the competitive sector of business has recently been demonstrated through the supported work model (Wehman, et al., 1984). This model provides for job placement, job-site training, ongoing assessment and follow-up services to insure the long-term employment of a chronically unemployable population. Curriculum focus of this model has typically centered on social/vocational survival skills (Rusch, 1979a), broadly delineated as those skills necessary to facilitate competitive employment.

Traditionally, competitive employment research has investigated strategies for increasing appropriate behaviors on the job site (Connis, 1979; Cuvo, Leaf & Borakove, 1978; Rusch, 1979b; Schutz, Jostes, Rusch & Lamson, 1980; Sowers, Rusch, Connis & Cummings, 1980; Stanford & Wehman, 1980), or reducing behaviors which might threaten employment (Karlan & Rusch, 1982; Kochany, Simpson, Hill, & Wehman, 1980; Rusch & Menchetti, 1981; Schutz, Rusch & Lamson, 1979). While these efforts have effectively demonstrated a technology for competitively employing the mentally retarded, they may be considered misrepresentative of the range of behavioral requirements resulting from competitive employment. For example, a variety of skills such as using public transportation, working independently, interacting with nonhandicapped individuals, or using industrial power equipment are typically nonfunctional in the sheltered work environments in which most mentally retarded people are employed. With the transition into integrated, community based work settings, individuals are required to engage in behaviors such as these which had never before been demanded of them. As such, future research and demonstration efforts must attend to the larger domain of community skills which gain functionality in competitive work settings.

The purpose of the present study was to identify those skill areas most in

need of development among competitively employed mentally retarded workers. Toward this end, parents and guardians of clients served by the Rehabilitation Research and Training Center were surveyed to identify skill areas deemed in need of further training. The results highlight the need to broaden the scope of training by those individuals responsible for placing and maintaining persons with mental retardation in competitive employment.

Method

Description of Data System. A telephone survey was administered to parents and guardians of all mentally retarded adults served by the Rehabilitation Research and Training Center in Richmond, Virginia. The purpose of this survey was to obtain demographic information on the client and his/her legal guardian. As such, information was solicited regarding client and guardian's educational history and vocational background, including previous employment, attendance at a sheltered workshop and type of school program attended (e.g. self-contained, integrated, transitional, etc.). Results from this demographic information are contained elsewhere in this text (See Hill, Hill, Wehman, Banks, Pendleton, & Britt, 1984).

In addition to obtaining client and parent demographics, the survey was designed to identify critical skill deficits exhibited by the clients. Nine skill domains were identified which represented responses deemed by the authors to be necessary for independent community functioning. These skill areas included: shopping, handling money, banking, using public transportation, using a telephone, telling time, eating out, engaging in conversation and maintaining a good appearance. As the survey was administered, parents were instructed to identify those skill areas they felt their son/daughter did not presently possess but which they were in need of acquiring. Parents were also asked to identify additional skill areas their son or daughter could benefit from acquiring but which were not

included in the survey.

Results

Seventy-one parents and guardians of mentally retarded adults in the Richmond Metropolitan area were contacted between January and March, 1984. This group was inclusive of all individuals placed into competitive employment by the Rehabilitation Research and Training Center who were currently working at the time of the survey.

All of the clients were diagnosed as mentally retarded, many with associated diagnoses of Down's Syndrome, cerebal palsy, and emotionally disturbed. Recent intelligence assessments of these individuals yielded a group mean I.Q. of 51 (range = 27-76). Seventy-seven percent of these clients resided at home with their natural parents at the time of the survey while the remaining 23 percent of the sample lived in alternative, community-based residential settings (e.g., group home, supervised apartment, etc.).

Sixty-three parents and/or guardians identified skill deficits for their son/daughter while parents of eight clients responded that their child was not in need of any skill programming. Specific skill deficits, as identified by the parents, were weighted heavily in the area of money related behaviors.

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As can be seen by inspecting Table 1, the three most frequently cited skill deficits were shopping/purchasing, money handling/counting, and banking/budgeting skills. Collectively, 57% of the parents identified programming needs in these areas. Following money management skills, 33% and 32% of the parents indicated that their son/daughter were in need of conversational and appearance skill training, respectively. Finally, 22% of the parents surveyed identified programming needs for time telling and public transportation skills.

When parents were asked to identify additional skill deficits not included in the survey, 13% (8) identified programming needs for cooking. Other identified programming needs included training for table manners, stuttering, and slower speech.

Discussion

The purpose of this study was to assess parent-identified skill deficits among mentally retarded adults engaged in competitive employment. The findings from this survey extend the arguments of Rusch (1983) and Wehman (1981) that individuals placed into competitive employment should receive training for social-vocational survival skills. In particular, the results suggest that instructional programs for these individuals should include money management, grooming, functional time-telling,and public transportation skills.

Currently, the technology for teaching many of these skills to mentally retarded persons is well developed (See Matson & McCartney, 1981; Snell, 1983; for thorough reviews). The development of money management skills, for example, has received a great deal of attention by Cuvo and his colleagues (Borakove & Cuvo, 1976; Cuvo, Veitch, Trace & Konke, 1978; Trace, Cuvo & Criswell, 1977). Unfortunately, much of this research has focused primarily upon counting small sums of money, typically less than a dollar, to make minor purchases. As mentally retarded individuals become gainfully employed and exposed to larger sums of money, researchers and clinicians alike must attend to the development of more complex and functional financial skills with this population such as depositing paychecks, paying bills, or purchasing groceries (c.f., Shafer, Hill, & Inge, 1984, this text). The importance of developing more functional financial skills with this population is underscored when one compares the vast differences in earning power that is associated with sheltered and competitive employment. Whitehead (1979), in a report to the Department of Labor, estimated the annual

gross salary of mentally retarded employees in sheltered workshops to be $417. In contrast, a competitively employed individual, earning minimum wage of $3.35 per hour and working part-time at twenty hours per week would gross in excess of $3200 annually. As such, those responsible for job placement and training have an ethical responsibility to assure the acquisition of sound financial management skills by their clients. To date, unfortunately, this responsibility has been left largely to the discretion of the client's parents, residential counselor, or guardian. Such a practice fails to support the autonomy of this population, but only furthers the dependency relationship that mentally retarded people have been exposed to for too long.

A recent report by Wehman (Wehman, et al., 1984) also emphasizes the need for broadening the training scope of the supported work model. In their report, they assessed the residential status of many of the same clients whose parents were surveyed in this report. Following placement in competitive employment, major trends were reported toward more independent arrangements as 3 and 11 percent of the clients moved out of their natural homes and group homes, respectively. These individuals were reported to have moved to either supervised apartments (5%) or out on their own (9%). These results, in conjunction with those presented in this paper, further support the notion that drastic changes often occur in the lives of mentally retarded persons as they enter community based activities, such as competitive employment.

While the results of this study hold major implications for those involved in the supported work model process, comparable recommendations could be made to secondary level special educators. Specifically, educators must apply a more longitudinal perspective to the education of their students. Given the slow and often sporadic learning patterns the mentally retarded students exhibit, it is imperative that school curricula reflects the skills which will be required of

these students later in life. As such, ecological analyses (Brown, et al., 1979) of the residential, vocational, or other settings in which students can be expected to function in must be completed to identify skill domains which then should be incorporated into the students' individual educational plan. Only through such coordinated programming efforts will we, as a field of professionals, provide mentally retarded people with a comprehensive and functional educational experience.

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Table 1

Parentally Identified Skill Deficits

Total Number of Respondents: 63

Skill	Number of Parents Reporting Skill Deficit	Percentage
Shopping/Purchases	38	60
Money Handling/Counting	34	54
Banking/Budgeting	36	57
Public Transportation	14	22
Telephone Use	04	6
Time Telling	14	22
Order/Eat in Restaurant	09	14
Conversational/Social Skills	21	33
Appearance	20	32
Cooking	08	13

Section IV: Behavioral Training Strategies

It is clear that a supported work approach to competitive employment cannot work without competent on-site job coaches. These coaches need to be skilled behavioral trainers. The papers in this section address issues such as work rate, punctuality, banking skills, etc. The number of problems which can be presented by hard-to-train clients is endless; therefore, well designed behavioral intervention programs are essential. This section addresses some of those concerns.